

MEDICAL EXAMINER.

DEVOTED TO MEDICINE, SURGERY, AND THE COLLATERAL SCIENCES.

No. 8.] PHILADELPHIA, SATURDAY, FEBRUARY 22, 1840. [Vol. III.

A MEMOIR ON THE YELLOW FEVER OF THE WEST INDIES,

*As it occurred in the year 1838, at St. Pierre,
island of Martinique.* By E. RUFZ, D.M.P.,
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Translated for the Medical Examiner, from the French
Manuscript.—[Concluded.]

OTHER CAUSES.

I HAVE seen no person taken sick after any excess of venereal indulgence. There is less of this species of dissipation in the colonies than there is generally thought to be: the passion can be easily gratified, and is but little excited by the imagination.

As for fear, I have seen no immediate bad consequences result from it. Undoubtedly, this emotion, carried to a certain degree, must have a fatal tendency; but, on the whole, I would rather see persons fear the disease, than brave it. It is, without doubt, difficult to remain free from fear, when one sees his friends and companions falling around him; sorrow being conjoined with fear, there results from the combination a sort of torpor of all the functions, especially of the digestive. In the course of the epidemic I have seen many persons in this condition, but of these comparatively few who passed from that state to that of true yellow fever. Most commonly, as I have already said, the disease showed itself suddenly, and without any premonitory symptoms. I will give you a remarkable example of fear.

M. S—, a merchant, although he had been travelling in the different colonies for twelve or fifteen years, in consequence of some remarkable deaths in the city, was, on the 10th January, seized with so great a degree of alarm, that he sent for me. I found nothing the matter with him, except a slight anorexia, and a great depression of spirits. I cheered him up, and prescribed rest, a light diet, and amusements. Towards evening he again sent for me, and assured me that I did not pay sufficient attention to his condition, and that he was more unwell than I thought him to be. In vain I added my exhortations to those of his whole family; he persisted, during the whole night, in cramming himself with chicken water, and sweating himself under several blankets. Towards 6 o'clock, on the morning of the 11th January, took place the earthquake, which caused so much calamity in this island. M. S— arose, much frightened; and, from this moment, having forgotten the yellow fever, he dreaded nothing but the earthquake.

The injurious influence resulting from the

use of spirituous liquors, cannot be more precisely pointed out. But we must attribute chiefly to this the great mortality amongst soldiers and sailors. MM. Ventieghem and Lucotte offered very striking examples of this. Temperance societies would produce greater benefits in the colonies than in any other climate; but rum being a source of revenue to the country, they will always prefer having the yellow fever. Such is man!

Finally, among other circumstances favourable to the development of the disease, I have noted exposure to the sun's rays, as well as exposure to a cool atmosphere after being heated. More than one patient, attacked by the fever, had, just before they fell sick, taken a warm bath, either for the sake of cleanliness, or as a precaution, and had afterwards suddenly exposed themselves to a current of air.

TREATMENT.

When this epidemic of yellow fever first broke out, as I was about to treat, for the first time, this terrible disease, I immediately had recourse to books as my first advisers. I soon found out that it was with the yellow fever, as with all the important diseases that afflict mankind: every possible mode of treatment had been tried, and they had all found supporters. However, through all the confusion of diversified testimony, I perceived, as I thought, that the antiphlogistic treatment pursued from the very commencement of the attack, was the plan which had the greatest number of advocates. Moreover, as the epidemic had first broken out at the military hospital, by attending to what was going on there, I learned that M. Catel, a strict follower of Broussais, but a conscientious man, and an esteemed physician, applied, with an extreme degree of rigour, antiphlogistic remedies, such as repeated blood-letting, leeches and drinks, diet and rest,—and that the mortality under his treatment was much less than that of the preceding epidemics. (See table.)

These two arguments in its favour determined my choice, and I resolved to treat the yellow fever antiphlogistically.

My first trial was not successful; it was the case of M. Lucotte. (See the account of his case.) I was, however, restrained by his relations, who were very much opposed to bleeding. The patient himself entertained the same opinion: I therefore tried only one large bleeding, and an application of forty leeches.

In the following case, the result will be seen to have been quite different.

The Abbé Grandidier, a man of a *canonical*

constitution—that is to say, corpulent and lymphatic, but nevertheless robust—felt some uneasiness during the day of 28th December: on the evening after, having assisted in the distribution of prizes at some institution, he was taken with a very severe chill, which was followed by heat. I saw him the next morning, (the 29th,) with the following symptoms: intense cephalalgia; injected conjunctivæ; dilated pupils; flushed face; general soreness of the muscles; pains in the loins; warm and moist skin; pulse one hundred and six, regular, soft and compressible; no nausea; no evacuation from the bowels; urine scanty and high-coloured; a severe and incessant cough, without expectoration; no rhonchus.

(A bleeding of twenty ounces, followed by syncope.)

In consequence of the bleeding, the cough became less troublesome, and the cephalalgia less severe; these symptoms, however, continued.

(At 3 o'clock in the afternoon, another bleeding of twenty ounces.)

30th.—He passed the night more quietly than the preceding. Face still flushed; cephalalgia continues; tongue whitish in the centre, without any redness; some nausea; abdomen yielding, and free from pain; one stool. The cough still persists; it is dry and harrassing, but auscultation gives no rhonchus, not even the mucous. Pulse soft, and one hundred; skin moderately warm. (Bleeding, sixteen ounces.) The same day, at noon, forty leeches were applied to the epigastrium.

On the 31st, the cephalalgia had ceased, but the cough still persisted, and was fatiguing to the patient. Pulse one hundred and six. (Thirty leeches to the epigastrium.)

On the 4th January, sixty leeches were applied behind the ears, and to the epigastrium, because he was still feverish, and had some cough.

On the eighth day the Abbé Grandidier was convalescent.

I have given a short account of this case, to show how far bloodletting may be carried. No one was more disposed to take the disease than this abbé, on account of—1st, his short residence in the island, having been here but ten months; 2d, his constitution, which was lymphatico-sanguine; 3d, his great dread of the disease; and, 4th, also on account of the particular epoch of the epidemic, it being most fatal about that time.

This case affords an example of that dry cough, almost entirely confined to the throat, which exists in some cases of yellow fever. I might report other similar cases; but to avoid superfluous details, which most men do not like to read, I will merely give the general results of my practice.

Of fourteen patients, whom I was enabled to bleed in the first twenty-four hours, two only died.

One of these was M. Lucotte. I think that if the bleeding could have been repeated in his case, the result would have been more favourable.

The other case is that of M. Ventieghem. Although antiphlogistic remedies were employed rigorously enough, (see the reflections accompanying the details of his case,) yet his circumstances were too unfavourable for any benefit to result from this treatment.

In two cases in which bloodletting was not commenced until forty-eight hours had elapsed, death took place. It is true, that in these cases, the treatment was very irregular, on account of the want of attendants.

The opinion of M. Catel, based upon a great number of facts, establishes a great difference between the cases in which bloodletting is resorted to in the first twenty-four hours, and those in which it is not tried until a later period. After forty-eight hours have elapsed, this physician prescribed leeches only; and he thinks that more benefit is to be expected from medicine.

He very freely communicated to me the following table of the mortality in the hospital, from the day on which bloodletting was commenced:

		No. of patients.	Deaths.	Proportion of deaths to recoveries.
Patients treated during the first 24 hours,		176	5	1 to 35
Do.	do. on the 2d day,	108	11	1 to 9
Do.	do. after 3d day,	143	40	1 to 3

Forty-two seamen, of the corvette *Thishé*, being attacked with the yellow fever, were sent to the hospital, by M. Delussay, surgeon of the ship, as soon as they were taken sick; not one of these men died.

Here are two observations taken from my own practice, which prove, that even at an advanced period of the disease, bloodletting may produce very good results.

M. Dupouy, a man of a robust constitution, had reached the sixth day of an attack of yellow fever. He had been moderately bled at its commencement. I was called in consultation. His face was very red, his eyes injected, with tendency to turn upward; there was a marked stupour, slight delirium, no vomiting and no discharge from the bowels; suppression of urine for twenty-four hours; full pulse. We agreed to apply forty leeches behind his ears; three hours after, forty more were applied to the anus. The next day the patient was much better, but as he expectorated a little blood, twenty leeches more were put on his neck. The expectoration ceased, and M. Dupouy got well.

M. B——, of a very strong constitution, had been bled by me at the commencement of his attack. On the third day, I had applied forty leeches to his epigastrium; as they bled for more than twenty-four hours, I arrested the bleeding. On the fourth day, when he seemed to be getting much better, he was taken with a very copious vomiting of blood, and

threw up enough to fill a wash-hand basin. I did not hesitate to take sixteen ounces of blood from him. M. B. recovered entirely.

I am then of the opinion, 1st, that the employment of copious bloodlettings, from the very beginning of the yellow fever is one of the most efficacious means of combatting the disease.

2d. That even at an advanced period, it is still preferable to every other means, although more caution is necessary in its application.

But bleeding has not appeared to me to be useful as a prophylactic means. In the case of two persons whom I had occasion to bleed, although they were but slightly affected, yet it did not prevent the disease from declaring itself fifteen or twenty days after. I did not, indeed, try it on persons who were perfectly well.

In conjunction with bleeding, I ordered mild drinks, such as chicken water, weak lemonade, *orangeade*, emollient injections, repose, and diet.

Sometimes I confined myself to these last means only, without bloodletting.

I treated in this way eighteen persons, of whom not one died. It is true, that in these cases, the symptoms appeared to be less severe. But in three of these cases, the disease had commenced sharply, and I had only been prevented from employing venesection by the temperament of the patient not appearing to me to be sanguine enough.

Purgatives.—It is a custom of the country to give from the commencement of the disease, lemonade, and injections of cassia; this is the treatment of the mulatto women. In two cases, the treatment of which I undertook after this course had been commenced, and in which I let it continue in order to see its effects, I had cause to repent of it, for the patients died.

There was in the city a man of incredible ignorance as regards pathology, who gave medicines at random. This man having found, in M. Trousseau's Journal, a note by M. Piedagnel, on the good effects of purgatives in the treatment of *typhoid* fever, had it printed in the newspapers of the country, and began to apply it, without distinction, in all cases. Wishing at least to profit by his ignorance, as an additional test of the science, I directed my attention to this man's practice. He of all the physicians lost by far the greatest number of patients.

I do not, on this account, mean to say that purgatives are not to be used in yellow fever. I think that, in the early stage of the disease, after bloodletting, laxative injections, by emptying the intestines of fecal matter, cannot but produce a beneficial effect.

When, towards the fourth or fifth day, there is obstinate constipation, with only a slight fever, and no vomiting, I have obtained good results from the use of a laxative of oil or cassia: but even in this case, if things are going on

well enough, my advice is to wait, for the least disturbance may prove fatal. There are, however, two grave cases in which I derived much benefit from the administration of purgatives. One patient had had very bad stools of black blood: the administration of castor oil produced beneficial effects by freeing the intestine of this matter, (see case of Eliza.)

M. D—, on the ninth day of his sickness, after a very evident amelioration, was taken with vomiting, and threw up over two spoonfuls of black matter, similar to that of the black vomit. Thinking that it was the remains of an effusion of this matter, which had fortunately been arrested and had stagnated in the stomach, I directed him to take three spoonfuls of castor oil; he had three evacuations and threw up no more of this kind of matter.

From purgatives employed in extreme cases either to arrest the black vomit, or to combat the stupor occurring in the last moments, I have never seen any good results, when other means had failed, and when I had given it as my opinion that the patient would die.

Of Emetics.—The quack of whom I have spoken, at the commencement of the epidemic employed emetics in the first stage of the disease. As he had almost entirely given them up towards its end, I suppose that his want of success had been constant enough to oblige him to beware of them. Moreover, this remedy is rejected by almost all who have written on yellow fever. Reason, which, in default of experience, should guide us in the choice of the therapeutic means, seems to repudiate emetics. Why, indeed, should we produce shocks of this kind on a man who has already a flushed face, red eyes, and intolerable pain in the head? why excite the appearance of a symptom which sometimes becomes too embarrassing?

One cannot say precisely what can be the use of frictions of lemon juice. It is a remedy which is very much boasted of, and is almost always employed simultaneously with others which are more active, such as bleeding or purgatives. But frictions require a degree of attention which we cannot expect from hirelings, to whom strangers attacked with the yellow fever are entrusted. It is rare that they are used with care for several successive hours. A service must not be very troublesome, if we would wish it to be performed accurately. I therefore lay little stress upon frictions; where I order them, I trust only to the exertions which are prompted by deep attachment.

As to the sulphate of quinine, and cinchona, I have made little use of them, and in the small number of cases in which I have tried them the results seemed equally balanced.

I confess that I should not venture, as I might have done, to give the cinchona at the beginning, when the patient is flushed, heated, in a state of apoplectic coma.

In two cases I have employed it without in-

convenience after bloodletting, when the symptoms were already improving; so that I am not sure that the patients would not have got well without it.

In some children in whom the diseases seemed to assume a paroxysmal character, the sulphate of quinine was useful.

But, in the second period, when the patients got worse, whether they had been bled or not, I have three or four times used the sulphate of quinine without advantage. One of these patients had furious delirium, which was rare in this epidemic.

A physician in the town administered the quinine very largely. I was often called in consultation by him, and believe that he was less successful than those who trusted to antiphlogistics.

In conclusion, the administration of cinchona and of the sulphate of quinine, seems to me of doubtful benefit: from what I have seen, I should distrust them.

It remains for me to speak of blisters, which were employed in the most severe cases, conjointly with other means; it is difficult to appreciate their precise benefit. Their employment is often followed by sloughs, which are difficult of cure.

CONCLUSIONS.

Such is the history of the epidemic which has desolated Martinique. I do not hesitate to regard it as one of the varieties of yellow fever:

1st. Because I find great similarity between my cases and those detailed by physicians who have observed previous epidemics of this disease.

2d. This epidemic reigned in some neighbouring colonies before reaching Martinique, but nothing shows that it was imported.

3d. This epidemic has been less fatal than other previous epidemics.

4th. We could detect no physical circumstance to which the origin of the disease could be attributed.

5th. Several of the most severe symptoms of yellow fever were rare in this epidemic, (chiefly sudden deaths, hæmorrhages, and severe nervous symptoms.)

6th. This epidemic was also remarkable from its attacking a considerable number of acclimated individuals, and even persons born in the country, especially children.*

7th. Large bloodletting employed at the beginning, seemed the most favourable treatment in Europeans.

* This probably arose from the long exemption of the island from yellow fever; hence acclimation, in a degree, ceased, and the inhabitants were placed nearly in the condition of the citizens of the Northern cities of America, in which yellow fever has from time to time prevailed.—Eds.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

February 3d, 1840.

The President, Dr. GERHARD, in the Chair.

Case of dislocation of the Cervical Vertebrae.

Presented by Dr. RANDOLPH. Reported and read by J. F. MEIGS, M. D.

M. R., a German, aged thirty-two, a strong, able-bodied man, was brought into the Pennsylvania Hospital on the 26th of January, 1840. At an early period of the evening before, while proceeding home in a state of intoxication, he, by some accident, fell backwards into an area of about seven feet in depth. Judging from the position in which he was lying when found, and from the existence of a small lacerated wound upon the crown of the head, it is probable that he fell directly upon the head, producing at the same time, extreme flexion of the cervical vertebrae, and a lateral twist from left to right. He was insensible when discovered about two hours afterwards, but was soon restored to consciousness by the use of frictions, &c.

When brought to the hospital, his intellect was clear, he answered questions, and complained chiefly of violent pain in the back of the neck. There was paralysis of the arms and legs; pulse slow and labouring; respiration abdominal; no headach, or, in fact, any cerebral symptom whatever. There was a lacerated wound of about an inch and a quarter in length, situated upon the top of the head, involving merely the integument. No contusion could be seen upon the back of the neck. Ordered four scarified cups to be applied to the neck, and ten grains of Dover's powder to be given.

27th—Morning. Has passed a bad night; very restless, complaining constantly of violent pain in the neck; no headach; intellect clear; pupils slightly contracted. Pulse fifty-six, of moderate volume, hard and tense. Respiration eighteen, diaphragmatic; the inspiration is full and quick, expiration rather slow. Skin warm and soft. Tongue dryish, covered with a light coat of whitish fur. Thirst very urgent. A pint and a quarter of urine drawn off by the catheter, of natural appearance; no stool since the accident. There is paralysis both of motion and sensation of the superior extremities, with the exception of the shoulders: of the trunk below the nipples, and of the inferior extremities. The action of the diaphragm remains perfect. In the parts not mentioned as paralysed, muscular power and sensation remain perfect. The loss of contractile power in the bladder is shown by the patient's entire inability to expel the urine when the catheter is introduced. Upon raising him into the sitting posture, the head falls heavily forward, greatly increasing the pain in the neck. No irregularity in the line of the vertebrae can be detected. Ordered V. S. $\frac{3}{4}$ xvi.

R. Hyd. Chl. Mit., et Pulv. Jalapæ \overline{aa} gr. x., Chart. i., stat. sumenda.

Evening.—The only alteration is that the skin has become cool and soft. R. Pulv. Doveri gr. x.

28th.—Has not slept through the night; extremely restless; constantly demanding water; two stools, evacuations natural. Pulse sixty, moderately full and strong. Respiration as before. Skin of upper part of body and of arms warmer than natural, of inferior extremities cool. Tongue as before; no difficulty in protruding it. Paralysis remains the same. Catheter introduced twice a day. Maciliginous diet.

29th.—Very restless through the night; complains principally of the pain in the neck. Pulse sixty-six, of considerable strength. Respiration more rapid than formerly, twenty-six. Tongue becoming dry and brownish; skin warm; no headach; intelligence good; no appetite; thirst urgent; one stool; paralysis as before; this morning, for the first and only time, observed slight erection of the penis. Urine is now becoming thick, whitish, and of an offensive odour. Ordered Tr. Opii gtts. lx. Died at 11 P. M.

Autopsy thirty-six hours after death.—Upon laying bare the upper part of the spinal column, there is found a complete luxation forwards of the fifth, upon the sixth cervical vertebræ. The posterior edges of the oblique processes of the fifth vertebræ are thrown in front of the anterior edges of those of the sixth; the ligaments uniting their spinous processes, and the corresponding yellow ligaments are entirely torn through, thus leaving a space of about half an inch between the bony bridges, in which the medulla spinalis, inclosed in its membranes, is completely exposed. The capsular ligaments surrounding the oblique processes are torn, leaving bare their articular cartilages. The intervertebral substance is separated from the inferior surface of the body of the fifth vertebra, so as to expose the bone without giving rise to any fracture. The anterior vertebral ligament is half torn through, the ruptured fibres being those situated upon the left side of the body. The muscular and ligamentous structure passing between the transverse processes of the two vertebræ, are much stretched and loosened, but not lacerated. The left transverse process is fractured at its base. There is a large quantity of black, coagulated blood, filling up the vertebral canal lying upon the outside of the dura mater. Dura mater natural, except that it has a slight red tinge from imbibition. Pia mater of a rose tint, from a number of minute vessels ramifying over it. Medulla, opposite to the seat of injury, converted into a soft, pulpy mass, of a dull white colour, with a slight admixture of red, from inflammation. This softening extends downwards as far as the first dorsal vertebra, though in less degree. In the head nothing abnormal was found, except great ful-

ness of the posterior venous sinuses, probably the result of gravitation.

Remarks.—The dislocation in this case was evidently produced by the violent flexion of the neck, resulting from the whole weight of the body having been thrown upon the head in the fall. The fracture of the left transverse process, and the rupture of the fibres of the anterior vertebral ligament, found on the left side, were probably caused by the twist from left to right. It is rare that displacement to so great an extent takes place, without more considerable injury to the bony tissues than the insignificant one of fracture of the transverse process, which, it appears to us, can have but little effect in the production of luxation. That it does occur, however, even without any fracture whatever, is proved by three cases reported by Ollivier in his work on the Spinal Marrow. In two of these, the fifth cervical vertebræ were dislocated forwards upon the sixth, in one of which the violence was so great as to produce complete rupture of the spinal marrow, the ends of which were retracted above and below, for some distance, into the canal of the vertebræ. In the third case, a man having a sack of grain upon his back, bent far forwards to throw it off, and in so doing, the whole weight of the bag fell upon his head while thus strongly flexed; at this very moment he heard a crack, accompanied by a sudden and violent pain in the region of the neck, and fell down paralysed. He died thirty-six hours after the accident; and a luxation forwards of the sixth upon the seventh cervical vertebra, without any fracture, was discovered. The diagnosis, of course, was not difficult: the paralysis, the violent pain in the neck, the peculiar character of the respiration, the absence of all cerebral symptoms, pointed at once to the upper part of the vertebral column as the seat of injury.

THE MEDICAL EXAMINER.

PHILADELPHIA, FEBRUARY 22, 1840.

PHYSICAL EXPLORATION.

In the last number of the Southern Medical and Surgical Journal, we observe an editorial article relative to the utility, practically speaking, of physical examinations.

The editor does by no means undervalue this mode of examination, but he lays unnecessary stress upon the difficulties of acquiring a knowledge of it. Hence he infers that the rational or functional signs must be relied upon by the practitioner who cannot acquire the troublesome art of physical examination.

Now, there is some truth in all this; but still, in the main, the editor is in the wrong. He evidently commits the ordinary mistake of

supposing the physical signs and the natural symptoms to be antagonizing methods of diagnosis. This is an erroneous belief. The two methods are clearly connected; and it is a matter of every day observation, that the most thorough knowledge of the rational symptoms is generally connected with the greatest skill in physical signs. This, indeed, is a natural result; for a course of study which clears up the intricacies of a disease, extends its influence to the whole series of symptoms by which it is known. Hence the rational signs of thoracic diseases have assumed a new importance within a few years; and the diagnosis is not only facilitated by them when the physical signs would, of themselves, guide us to a correct result,—but they serve in many cases where the physical signs are insufficient, for the plain reason that the disease is but commencing. The greater certainty of the physical signs gives them value, not only as positive, but as negative proofs of the disease; hence we use them largely by the method of exclusion. That is, we decide that certain diseases do not exist, because their pathognomonic physical signs are absent,—and afterwards we resort to the rational symptoms, which acquire additional importance from our knowledge that the diseases which remain for our examination are but few in number.

As to the certainty of physical signs, it is almost unnecessary to speak. This is shown by every day experience; and if new evidence were requisite at this period, we need only refer to the daily observation of those who are in the habit of seeing these signs pointed out to them under circumstances which forbid the possibility of illusion. That the physical signs are not all-sufficient, is true; but, at the same time, they are much more accurate than any other known means of investigation. Even should the physician who resorts to them be but indifferently acquainted with them, the chances of error are not increased, but a mistake becomes more evident, for the vagueness of ordinary diagnosis does not shield it from observation. An opinion is, to a great extent, positive, and is shown to be true or false.

We are persuaded that even the difficulties of acquiring a knowledge of physical diagnosis, are in some degree exaggerated. It is true, a complete knowledge of them, and a facility in their application, are difficult, not

only because time and opportunities are necessary to learn the signs themselves, but because they imply in their very nature an acquaintance with the history and pathology of pectoral diseases. Still, a knowledge which is quite sufficient for most purposes, and is a valuable aid to a physician who is obliged to rely mainly upon the rational symptoms, is neither very difficult, nor liable to lead to erroneous conclusions.

CLINICAL LECTURE.

PHILADELPHIA HOSPITAL.

Wednesday, February 12th, 1840.

ON ASTHMA—PARALYSIS—DROPSY.

By W. W. GERHARD, M. D.

No. 13—Winter Course.

I SHALL speak to-day of certain disorders, which are rather to be considered as the effects of disease, than as diseases in themselves. These disorders are mostly of an obscure and chronic character, and, therefore, not so interesting to the commencing student, as many of those cases of acute and well marked disease, which have heretofore occupied so large a share of our attention. These affections, nevertheless, are of such frequent occurrence in the practice of every physician, that it is of the highest importance that you should be made acquainted with them. Apart from this practical importance, the very obscurity of the lesions, upon which they in many cases depend, should render them objects of interest to every one who studies medicine as a science.

Though it may seem paradoxical at first sight, there is, really, in many instances, great difficulty in discriminating between symptoms and diseases. In many practical works on medicine, various affections are described as diseases, which are, in fact, only symptoms,—that is, manifestations of an organic lesion in some viscus or other of the economy. The most important of these affections, and those to which I wish particularly to call your attention at present, are Asthma, Paralysis and Dropsy. In most works, excepting those very recently published, these are considered as idiopathic diseases. The fact is that those instances are very rare, in which they are truly idiopathic; in the great majority of cases they may be referred to organic lesions of some important internal organ, and there can hardly be a doubt, that further investigations will enable us thus to refer many of those cases which are still considered idiopathic. At the last lecture, I illustrated this matter, so far as it relates to dropsy, somewhat in detail. Dropsy, until very lately, was spoken of as a distinct disease; it is now known never to be so, except in a few rare instances. These may be referred to two classes; 1st, those which arise in consequence of a sudden exposure to cold, and

an arrest of the cutaneous exhalation; and 2dly, those which result from inflammation of a serous membrane, however excited; but this last class can scarcely be included among dropsies proper. All other varieties of dropsy, except those just mentioned, are now referred to lesions of the heart or venous system, liver or kidneys; several cases, in illustration of this, were presented to you at the last lecture, and I need not note more fully into the subject at present.

Asthma is now considered as idiopathic, only in those cases which depend apparently upon some functional disorder of the nervous system, and in which no organic lesion can be discovered after death, of such a kind or degree as to account for the intense dyspnoea which characterizes the disease. Now we have had but a single case during the present season which can be strictly referred to this head. It was that of a man who was subject to violent paroxysms of dyspnoea, together with symptoms of slight inflammation of the bronchial tubes. It is this variety of the disease, which, in New England, is called "rose asthma," and in England, "hay asthma," or "hay catarrh." Such instances as this, are really idiopathic; for in them, the dyspnoea commences as a true nervous affection, and organic affections, if they occur at all, are secondary.

But asthma, in the great majority of cases, is only a symptomatic affection, and depends on an organic lesion of one of the thoracic viscera. When it is a permanent, not a paroxysmal disorder, it arises most frequently, perhaps, from *emphysema of the lungs*, a lesion of which you have yet seen few or no examples. This variety of asthma is never dangerous, unless it be complicated with phthisis, or some other serious disease of the lungs or heart. When uncomplicated, it is characterized by shortness of breath in ascending a flight of stairs, or in making any other unusual exertion; by the same fatigue and dyspnoea after talking, when the oppression is most obvious at the end of every sentence; and by the physical signs of extreme resonance on percussion, and feebleness of the respiratory murmur. When it exists, however, only in a slight degree, emphysema may pass almost unnoticed for a great length of time.

The anatomical lesion in this disease, consists in an enlargement of the vesicles of the lungs. Of course, if one set of vesicles is greatly enlarged, another set must be atrophied in a corresponding degree. The effect of this dilatation of the vesicles must be, to cause the air to remain longer in its passage in and out of the lung than it ought to. From this delay in the passage of the air, arises the difficulty of breathing. This change in the pulmonary vesicles almost always takes place first and in the highest degree at the anterior margin of the lungs. The remote causes of emphysema

are of various kinds. It is sometimes congenital; but in most cases it depends upon some acute disease. Thus pneumonia, which obstructs the action of the central and posterior parts of the lung, necessarily causes an increased expansion of the cells of the anterior part, because these have a double duty to perform: and this temporary expansion frequently becomes permanent, and is aggravated by every cause giving rise to some degree of dyspnoea, or to excessive action of the respiratory organs. Emphysema may likewise be caused by more chronic diseases, such as bronchitis, phthisis, or any other, in fact, which puts the air cells on the stretch for any length of time: these cells having but little resiliency in their parietes, are apt to yield to the expansive force, and suffer a permanent change of capacity.

Again: asthma may be caused by disease of the heart. It is difficult to say whether this or emphysema of the lungs is the more frequent cause, because they so commonly coexist in the same individual. Indeed, one of them hardly ever occurs without inducing the other sooner or later. Thus emphysema causes dyspnoea; the blood consequently accumulates about the heart; a disordered action of this viscus is the result, and this again produces in course of time a corresponding change of structure. Or the order may be reversed: the disease may originate in the heart, and be transmitted to the lungs. In either case, the asthma is not an idiopathic disease, but a secondary one; or, more properly, a symptom of an organic lesion of the heart or lungs.

Again: *chronic bronchitis* may give rise to asthma.

The bronchitis in such cases, is of the dry kind, unattended with secretion, but marked by a thickening of the mucous membrane. This opposes a mechanical obstruction to the exit of the air from the lungs, and the vesicles are therefore forced to dilate themselves: in other words, emphysema is the result. This again, as already explained, may in the end cause a disease of the heart, which will tend to aggravate the asthma already produced. Thus we find, that asthma may depend upon various lesions, either as an immediate or a remote consequence. It is a subject of interest to the pathologist, inasmuch as it illustrates the connexion between symptoms and lesions, even when the latter are most remote and obscure.

Paralysis is in a few cases idiopathic, but for the most part it is dependent on an evident lesion of some portion of the nervous system. One of its most frequent causes is *apoplexy*. The paralysis following apoplectic effusion is always of the *hemiplegic* kind,—the paralysis affecting the side opposite to that in which the effusion has taken place. Apoplectic effusions, for the most part, occur in the substance of the corpus striatum or the optic thalamus, but, if sufficiently abundant, they may break into, and

even fill the adjacent ventricle. There appears to be no connexion between the particular part of the brain in which the lesion occurs, and the part of the body which is subsequently affected with palsy. The latter generally affects the whole of one side; but the loss of power is perceptible first, and to the greatest degree in the upper extremity; the lower extremity, as it suffers least, so it is the first to recover its normal condition. The paralysis following apoplexy has one pathognomonic character, by which it may be certainly distinguished from all other varieties of the disease; that is, the *suddenness* with which it makes its appearance. Other cerebral lesions occasion paralysis, but never with the perfect suddenness which characterizes this form. The reason is obvious; the sanguineous effusion produces an instantaneous destruction of a portion of the cerebral mass; at the same instant, consequently, there results a loss of function. Hence, in investigating the source of an attack of palsy, we should always inquire first into its mode of origin. If the patient tells that he was suddenly taken with ringing of the ears, giddiness, and loss of consciousness, and immediately afterwards with paralysis, we may conclude, with perfect certainty, that an apoplectic effusion has been the exciting cause of the affection. Its remote cause may be any of those various circumstances which produce a tendency to extravasations of blood from the cerebral vessels; such as intense and long continued exercise of the mind, local injuries, ossification of the arteries of the brain, &c.

Congestion of the brain, merely, may also produce paralysis; but in this case it is only temporary, and may generally be cured by efficient depletion. But we can never expect to cure a case of true apoplectic palsy, because it is dependant on the mechanical destruction of a portion of the cerebral substance, which can never be replaced.

Inflammation of the brain, terminating in softening, is another cause of paralysis. As in the case of apoplectic effusion, this affection of one side of the brain, causes paralysis of the opposite side of the body. There are two marks which distinguish these two forms of palsy from each other; that arising from ramollissement, is characterized by rigidity from its very commencement; it also begins slowly and by degrees. On the contrary, that following apoplexy is, at first, characterized by relaxation, instead of rigidity, and commences suddenly.

Inflammation of the *membranes* of the brain, involving the cortical substance, may, in like manner, give rise to paralysis, which, as in the preceding case, is marked by rigidity, which lasts as long as the inflammatory affection on which it depends. In old people, again, we have a kind of paralysis, which is produced by softening of some portion of the cerebral tissue; but this disorganization does not depend on a proper inflammation; it is a

decay, a sort of *necrosis* of the brain. It commences by degrees; is more permanent than either of the varieties just spoken of; and generally affects both sides of the body at the same time, but in an unequal degree. Its usual cause is ossification, or, at least, cartilaginous transformation of the arteries of the brain.

We have still another form of paralysis, occurring in the *insane*. But it is by no means confined to this class of persons; it is often observed in individuals whose intellect is sound, or at any rate, not sufficiently disordered to entitle it to the appellation of insanity. The insanity, when it occurs, is only one symptom of the lesion giving rise to the paralysis, and may be present or absent, according to circumstances. There are, consequently, two varieties of the complaint. In one, there is at first no insanity, but simply an enfeebled state of the sensibility and power of locomotion, in some part of the body. We sometimes meet with this kind of palsy in men of brilliant intellect, who have accustomed themselves to intense mental effort. It generally comes on gradually, and after progressing to a certain point, it may abort, or it may continue until it effects an entire destruction of the powers of intellect and of locomotion. The loss of power is first manifested in the voice: there is a peculiar hoarseness or huskiness observed at the end of each word or syllable. This change of voice is so peculiar and well marked, as to have received the name of the paralytic tone. This may be the only symptom of the affection for a considerable period. But sooner or later some change in the activity of the intellect is observed, and it is first perceived in most cases, by the patient himself, especially if the memory fails before the other powers. It may amount to positive insanity, or merely to a conscious imbecility of mind. In the latter case, the patient generally takes great pains to conceal it as far as possible, from those around him. In the further progress of the affection, the powers of locomotion become impaired, particularly in the lower extremities, because any weakness in them will manifest itself in walking, in spite of the efforts of the patient: but there not being the same necessity for steadiness in the motions of the arms, any irregularity in these motions may pass unnoticed for some time. The palsy generally affects both sides, and produces a peculiar waddling motion, and straddling of the legs, when the patient walks. The aberration of mind in such cases is often peculiar: the patient is constantly indulging in lofty notions of grandeur, wealth, &c. In another variety of this palsy, the disorder of intellect is first to manifest itself: the patient becomes insane, before he becomes paralytic. The anatomical changes observed in persons who die of this sort of paralysis, consist of thickening and opacity of the membranes, and induration of the cortical substance,—the consequences of chronic inflammation. In the commence-

ment, this palsy is generally curable: but when once fully established, we can entertain no hopes of a favourable result.

Paralysis may likewise be the consequence of an altered nutrition of the substance of the brain, producing scirrhus or tuberculous deposits; or of exostosis, osteo-sarcoma, or other bony tumours of the cranium. There are of course no certain means of distinguishing paralysis arising from these causes. The existence of scirrhus or tubercles in the brain may be suspected, from their simultaneous existence in other parts of the system: but it is impossible to detect exostosis and other lesions of this nature, unless they should happen to present themselves externally. The paralysis arising from these causes resembles in many respects that which is consequent upon the softening of the brain in old people.

All these varieties of cerebral paralysis are often obscure at their onset, and for a time partially latent. You hear sometimes of entire destruction of considerable portions of the cerebral mass, without the occurrence of any symptoms to point it out. These occurred to me from time to time, but of late years, I have scarcely met with them, and am obliged to infer, that I now notice symptoms which would escape an observation not cultivated by long practice.

Paraplegia, or paralysis of the lower extremities, arises from some affection of the spinal marrow,—generally inflammation and its consequences, or caries of the vertebræ. It is frequently curable in the first stages by local antiphlogistic and revulsive measures: but if disorganization of the spinal marrow has taken place, the disease may be considered incurable.

The foregoing remarks will show you the various lesions upon which different forms of paralysis depend. Nevertheless there are cases, in which no organic lesion can be discovered. Such are those cases in which the disease attacks not the centre, but the periphery of the nervous system. Thus a single nerve may be alone affected; a finger or toe may be seized with weakness and numbness. These cases of paralysis, as they cannot be accounted for by any known and appreciable lesion, must be considered idiopathic. But it is not improbable, that they may hereafter be referred to lesions as yet undiscovered. These instances are often met with in persons who have injured their intellect by excessive study, or by intemperance. The paralysis following the poison of lead may also be referred to the same variety.

There is another class of cases in which no particular lesion of the nervous system can be detected. Yet they are not idiopathic, but sympathetic of an affection of some thoracic or abdominal organ: they therefore continue only so long as their local cause does. Thus disorders of the stomach, heart, or uterus, may

give rise to a temporary paralysis. Cases of this kind are rare in men, but much more frequent in women, and are generally connected with uterine irritation.

The account which I have now given you, of a set of diseases which were, until lately, very imperfectly understood, will aid you materially in the study of them. Without having some definite notions of their pathology, it will be impossible for you to understand the variations which are constantly met with in their course, and the treatment appropriate to each particular case. Before concluding, I wish to present to you some cases of paralysis, as instances of several of the forms of the complaint which I have described.

Case 1.—You can easily discover from the conversation and motions of this man, the particular forms of the disease with which he is affected. His mind is clear: the motions of his arms are unimpaired: in the lower extremities only is there a loss of power. His gait is tottering, and he is obliged to use a cane to support himself. The loss of sensibility and motion in the lower extremities was first perceived about a year ago: it commenced very gradually: the patient is ignorant of any cause which may have produced it, unless it be habitual intemperance. I may remark that in these cases of paraplegia, we often seek in vain for a probable cause; as they, in many cases, depend on certain venereal excesses, about which the patient is not very apt to speak freely. The right leg is weaker than the left; differences of this kind are frequently observed, but we seldom see a case in which one leg only is affected. The patient suffers more or less pain in the right ankle, and sometimes in the small of the back; he never has cramp in the legs, but frequently feels a twitching, and darting pains; pricking and creeping sensations are also frequent symptoms of paraplegia; but this patient seems not to have experienced them. He has also had emphysema of the lungs, which followed an attack of pneumonia, and was attended with a tubercular deposition. But the progress of the latter formation has been almost arrested since the paralysis commenced. From the fact of the previous existence of a tuberculous affection, we are enabled to account for the occurrence of the paralysis. The connexion between a scrofulous diathesis and caries of the vertebra is well known; and it is probable that such an affection of the spinal column exists in the present instance, attended by inflammation of the spinal marrow itself. Some signs of the former emphysema are still perceptible; the percussion is very resonant on the anterior walls of the chest; the respiratory murmur is feeble; and on the left side there is a decided fulness of the ribs.

Case 2.—This is the man whom you saw about two months since, with a prominence of the spinous processes in the lower part of the dorsal region. The treatment has consisted of

the application of moxas and blisters, purging, and, what in such cases is more important than any thing else, *rest*. The local pain has been gradually declining. During the course of the disease, the patient has suffered much from neuralgic pains in the lower extremities: in addition to the remedies already mentioned, these pains were, on one occasion, on account of their paroxysmal character, treated with sulphate of quinine, and with complete success. The swelling on the back is now nearly gone, and the cure may be considered as complete. The paralysis in this case, too, depended on inflammation of the spinal marrow consequent on disease of the vertebræ.

Case 3.—This woman has been paralytic in the right arm and leg for two or three years. While in the enjoyment of perfect health, she was suddenly attacked one day with giddiness and loss of consciousness. From this attack she dates the beginning of the paralysis. The loss of feeling and strength have much diminished of late: the numbness principally affects the thumb and fingers of the right hand; the right leg is also somewhat weak. Cups were first applied to the back; but, as they seemed to produce little relief, they were next applied high up in the cervical region. This treatment has been attended with considerable improvement. The hemiplegia is, in this case, evidently owing to an apoplectic effusion, which has partially destroyed a portion of the cerebral substance.

Case 4.—This old man has been paralytic for two years; the disease commenced gradually. His gait is very tottering; the right arm is weak; the mental faculties much enfeebled, and the paralytic tone of voice very well marked. This is probably a case of the paralysis of the insane, depending on chronic inflammation of the membranes and substance of the brain.

I next show the dropsical patient who was before you at the last lecture. You will recollect that I then stated that the dropsical effusion was caused by a disease of the kidneys, which was indicated by the presence of albumen in the urine. It has been treated principally by cupping over the kidneys. This treatment has produced a very decided reduction of the swelling: the remains of it are more evident in the face than in any other part of the body. But the duration of the disease must still be considered very uncertain.

The last case which I shall present you is one of pneumonia. The patient was yesterday admitted, with slight cough, and pain in the lower part of the right axilla; the dyspnoea was very trifling. The disease began only one day before his entrance, and it was very difficult to say, from an examination of the symptoms merely, whether he had pneumonia, bronchitis, or pleurisy. I therefore resorted to an examination of the physical signs, and this revealed the existence of pneumonia. The re-

spiration is imperfectly bronchial at the lower part of the right lung, with feebleness of the vesicular murmur, and crepitant rhonchus. There is but little excitement of the pulse, and the skin is very little above the natural temperature. The inflammation appears, therefore, to be of an asthenic kind, from its very commencement. It has not yet advanced to the second stage, or that of hepatization; if it had, the respiration would have been more decidedly bronchial, and the percussion deficient in resonance. It will probably be unnecessary to employ active measures in a case like the present. I shall therefore order cups to the chest, and put the patient on the internal use of an infusion of the *asclepias tuberosa*, or pleurisy root. This article is an excellent diaphoretic in such cases, and acts very much in the same way with the *eupatorium*. Small doses of tartarized antimony would also be of service. The prognosis of this case is altogether favourable, and the duration will be less than the average.

DOMESTIC SUMMARY.

CLINICAL MEDICINE.

The following resolutions are published at the request of the class attending the lectures on clinical medicine, delivered during the winter of 1839-'40, at the Philadelphia Hospital:

"A portion of the medical class of the University of Pennsylvania, who have attended the lectures at the Philadelphia Hospital, being desirous of expressing their sense of the value and importance of clinical instruction, and of their obligations to Dr. W. W. GERHARD for the able course of lectures delivered by him at that institution during the present session, have met together for that purpose. Therefore,

Resolved, 1. That we consider clinical instruction the most important method of teaching the pathological states of the system, and of familiarizing the mind of the student with the means of correcting the aberrations from the standard of health.

2. That we consider the course of lectures on clinical medicine, now being delivered at the Philadelphia Hospital, of great value, particularly because of the truly scientific, as well as practical manner, in which diseases, involved in much obscurity, are elucidated.

3. That we consider Dr. Gerhard eminently qualified to give instruction in clinical medicine and pathological anatomy, and that we particularly admire his unequalled skill in illustrating the diseases of the thoracic organs.

4. That a committee of ten be appointed to present a copy of these resolutions to Dr. Gerhard, and to tender him our thanks for the zeal and ability which he has manifested in the interests of the class.

5. That these resolutions be signed by the

chairman and secretary, and that a copy of them be presented to the Faculty through their Dean.

6. That a copy of these resolutions be also sent to the medical journals and newspapers of this city, with a request that they publish them.

The committee appointed under the fourth resolution, consists of the following gentlemen:—Drs. C. Quarles and R. Kownselar, and Messrs. T. B. Lamar, M. A. Page, T. R. Spencer, W. H. Van Buren, Allen Gunn, H. Selden, T. L. Walker, and J. R. Justice. On motion, the chairman was added to the committee.

J. A. PLEASANTS, M. D.,
Chairman.

L. S. JOYNES, M. D., Secretary."

From an interesting paper by Dr. Detmold, published in the New York Journal of Medicine and Surgery, we extract the following interesting remarks relative to the treatment of club-foot. A lecture on the subject, by Dr. Mütter, of this city, with wood cuts of the apparatus necessary, was published in the Examiner of last year.

The extended application of this operation renders it of great interest to surgeons:

"Generally in children less than a year old, the muscular contraction will yield to the mere extension with proper instruments, although, of course, the age alone decides nothing. We have operated upon children of three months of age; and we have cured, without dividing a tendon, congenital club-feet in patients of four years of age. Besides, it makes a difference whether mechanical means have been already used; for, although they may not have been efficient enough to cure the disease, still they may have operated as a check against contraction. In cases not congenital, the causes and the duration of the disease are important in deciding the question, whether to operate or not. Recent cases after paralysis, and before the deformity has reached a high degree, seldom require the knife; we have cured a lad of fifteen years of age without operation, where the deformity in both feet had existed thirteen years, but where various kinds of shoes had been used during most of the time, which, although the patient only walked the worse for them, still had kept a sort of control over the contraction."

"The operation itself is very simple. After the patient is placed in the most suitable and convenient position, an assistant, or the surgeon himself, with his left hand extends the heel to make the tendon more tense, so that it shall not yield before the edge of the knife. The principles to be observed in performing the operation are, to cut, not by drawing the

knife, but by *pressing it against the fibres*,—in this way there is no danger of wounding other tissues,—to divide the tendon where it is most prominent under the skin, to separate it completely, not leaving any of its fibres undivided which might afterwards be torn by the extension; to pass the knife as closely round the tendon as possible, so as to make the internal wound not larger than is necessary, and to make the wound in the integuments as small as possible.

A good deal has been said about the shape of the knife, whether it should be straight, concave, or convex. We formerly used a concave knife, but now use, in preference, a straight one; the shape of the knife is immaterial, provided the blade be narrow. The one we are now in the habit of using, is in its broadest portion not quite one-twelfth of an inch. In dividing round tendons, and tendons or muscles which are so placed that it is easy to pass the knife underneath without fear of wounding other parts, it is advisable to use a straight or slightly concave knife, to introduce it under the tendon with the edge upward, and cut from within outward; whereas, in cutting flat muscles, aponeuroses, or ligaments, we prefer a convex knife, which we introduce under the skin, and divide the tendon by pressing the knife upon the contracted and tense fibres, cutting from without, inward. Some surgeons, in dividing the tendo Achillis, make two external wounds, that is to say, they suffer the point of the instrument to penetrate the skin on the opposite side of the tendon: others pretend to see a great advantage in making only a single external wound. We have operated both ways, and found no difference in them. When we used the concave knife, we generally made two wounds; but now, with the straight knife, we make only one; but these wounds are so small that if a surgeon should think the operation easier and safer by bringing the point of the instrument out on the other side of the tendon, the second wound would be no objection against this method; on the contrary, we would certainly advise him to adopt it. In fact, provided the general principles already laid down are followed, the mere mechanical execution of the operation is so simple that every surgeon of moderate skill will be able to perform it.

While the instrument is passing through the fibres of the tendon, we always hear a peculiar grating sound, and, when the division is completed, a distinct jerk, from the retraction of the severed extremities, is heard and felt. Sometimes, however, the surrounding cellular tissue is so tense, and the muscle so rigid in its contraction, that the extremities of the cut tendon cannot separate so suddenly, and consequently the jerk is not perceived. We should therefore make it a rule after withdrawing the knife, always to ascertain with the finger whether the tendon has been completely divided,

and if we feel some fibres remaining tense under the skin, we should introduce the point of the knife again, through the same external wound, and divide these fibres. This accident may happen if the instrument is passed too closely round the tendon, so that the point enters between the fibres, those beneath the back of the knife of course remaining undivided. We have never met with any untoward accident. Once, only, in dividing the tendo Achillis in a little girl of nine years of age, we had a slight hæmorrhage; and although the blood came out, at first, in a jet, it stopped almost immediately, the child losing hardly half an ounce. Scontetten relates two cases of hæmorrhage after the division of the tendo Achillis; in one case the little patient lost from eight to nine ounces of blood: he succeeded, in both cases, in stopping the bleeding by compression. Any accident that may occur has, of course, to be treated according to the general rules of surgery.

The external wounds are so small that they require no other dressing than a small piece of court-plaster: for precaution's sake, we put a small compress wet with cold water, and a loose bandage over it, and in every case in which we have operated, the wounds have healed by the first intention. Immediately after the division of the tendo Achillis, the patient generally feels a numbness in the limb for a short time, and after that an occasional twitching in the muscles of the calf, but the pain ceases immediately after withdrawing the knife.

We formerly used to apply a bandage similar to that employed after rupture of the tendon, for the purpose of bringing the cut extremities together; but we have found even that unnecessary, because the ankle-joint is generally so stiff that the extremities cannot separate far enough to make it probable that they should not unite again. In purely spasmodic cases, however, where the contraction is very strong, and the ankle-joint flexible, so as to admit, by the descending of the heel, a greater separation of the extremities of the tendon, we still adhere to our former practice.

We now arrive at a very important question, viz., whether to begin extension immediately after the division of the tendon, so as to make the cut extremities at once separate as far as possible, or whether to allow the tendon time to unite again, and then to commence stretching gradually the yet soft intermediate substance; and if the latter method be preferred, how long will it be advisable to wait before the process of reunion shall be far enough advanced to exclude the fear of the divided extremities remaining separated, or of causing inflammation?

Some of the French orthopedists have adopted and advocated the method of immediate extension; if our readers have had the patience thus far to follow our reasoning and

views on the whole subject of tenotomy, they will readily perceive that we must be opposed to this proceeding; and we feel confident that the majority, nay, in fact, every prudent practitioner, will agree with us, especially after having impartially considered the advantages and disadvantages of either method.

All the advantages which the advocates of immediate extension claim for their method, are the saving of time and of pain; but if we compare the result of their practice with that of others, for instance, Stromeyer's, Little's, and our own, we do not find it in their favour. We have, besides, repeatedly, after operating upon both feet in the same patient, applied the extending apparatus to one foot immediately, and to the other several days after the division, and have experienced no difference between the two feet; or, if any, the immediate extension was the more painful. In one case which we had operated upon, we were obliged, by circumstances beyond our control, to defer the application of the apparatus for three weeks after the operation, during which time the foot was left entirely to itself; and although the deformity was great, we succeeded just as well as in other cases where we had applied the apparatus much sooner. This proves the advantages of the method, which by its advocates is called an improvement of Stromeyer's, to be, at least, very problematical; and, indeed, this might be expected, *a priori*, for even if we allow two or three days to the tendon, for the exudation of the reuniting plastic lymph, this does not gain, in so short a time, consistency and firmness enough to offer any considerable resistance to extension. That resistance which we experience in deferring the extension a few days after the division, results mainly from the contraction of the tarsal ligaments, and is, of course, the same as in immediate extension. The advantages of this method become still more doubtful if the theory be correct, that tenotomy acts dynamically by relieving the spasm of the divided muscle; for, according to this view, it would hardly make any difference at what period after the operation extension is commenced; and such we find to be the fact in purely spasmodic talipes.

The disadvantages and perils of immediate extension are, on the other hand, almost self-evident, so much so that even if a series of successful cases, where no dangerous symptoms followed that procedure, were adduced in favour of the method, we should be inclined to consider them rather as so many lucky escapes, than as proofs of the safety of the method.

The dangers which we fear from this, so termed, improvement upon Stromeyer's method, and why we are opposed to it, are of a two-fold character; first, the tendon may not unite again, and thus the patient may be maimed for life. This is no vain apprehension; for it has been proved by experiment on animals, that a tendon will unite again if the

extremities separate two inches from each other; but that reunion seldom takes place if the distance is greater, and never if it amounts to four inches. Although the rigidity of the tarsal ligaments in talipes seldom admits of such a wide separation, yet in recent cases, where the ligaments are not so much affected, it may occur, especially as the application of the extending apparatus by the pressure, (which in fastening it to the leg is unavoidable,) may, at the same time, act as a stimulus to convulsive contraction of the gastrocnemii.

The other danger is, that inflammation, with all its consequences, as suppuration and sloughing of the tendon, may be caused by forcibly stretching the fresh wound, a danger which will also be increased by the impediment to free circulation in the limb, arising from the compression of its blood-vessels by the fastening of the apparatus.

It certainly does not require much arguing to prove that these two results may follow immediate extension; and if they do, that they are so injurious in their consequences, that even if the yet doubtful advantages of the method, the saving of time and pain, could be positively proved, (which we by no means concede,) we doubt much whether prudence could sanction it.

The period when the extension may be commenced without incurring the danger of either causing inflammation or preventing reunion of the tendon, cannot be positively fixed; the circumstances which must guide us to determine this point, are the rigidity of the contracted gastrocnemii muscles and of the tarsal ligaments, together with the progress of the healing process. The former must be ascertained before the operation, the latter by an examination of the external wound. If we find that the space between the separated extremities of the tendon is filled up with plastic lymph, which is ascertained by a slight unelastic swelling under the skin, without pain or redness, we may safely commence extension without fear of disturbing the reunion. This exudation of plastic lymph generally takes place within twenty-four hours after the operation; but in cases where the ankle-joint is very flexible, and where the extremities of the tendon have separated more widely than usual, it may be prudent to wait a day or two longer.

After having, by the division of the tendon, overcome the greatest obstacle to the reduction of the deformity, this must be effected mainly by mechanical means; for the operation itself produces hardly any immediate change in the appearance of the limb; of the value of external applications, frictions, and chamoosing, we have said a few words already; they are useful assistants in giving tone to the muscles; but for the alteration of the shape of the foot, the mechanical means can alone be relied upon. Various machines have been invented and used to accomplish this object; in fact, al-

most every surgeon who has paid some attention to this branch of surgery, has contrived an instrument of his own which he thinks preferable to all others. because he is accustomed to use it. This only proves that the construction of the machine is of little importance, provided it fulfils the indications of the case, which are,

1st, To bring down the heel.

2d, To bring down the inner margin of the foot; and,

3d, To relieve the contraction of the inner margin of the foot."

"From time to time, the machine has to be taken off; especially if the patient complains of soreness of the skin, the foot must be examined and washed with a spirituous lotion. A circumstance which makes the skin more subject to become blistered and sore, besides the unavoidable pressure, is the profuse perspiration in which the foot is often kept during the whole treatment; it is sometimes so profuse that the mere bandaging up of the foot does not appear sufficient to us to account for it. We believe that the peculiar coldness of the skin in talipes, arises from the vessels of the skin participating in the spasmodic affection of the muscles; and that when the spasm in the muscles is relieved, the spasm of the skin is also relieved by sympathy; and hence the profuse perspiration during the treatment. We are the more inclined to account for it in this manner, as we have observed the same symptom after the operation, where no machine had yet been applied.

If we find the epidermis raised to a blister, which occurs easiest on the instep, the blister must be opened; and if the cutis beneath is not much inflamed, it is sufficient to cover the part with simple cerate, when we may put the machine on again. Generally the skin heals under the same pressure which produced the blister; but if the cutis has been more seriously affected by the pressure, and exhibits a suppurating surface, the application which we have found most effective is a solution of nitrate of silver with tincture of opium, which we apply with a compress, and generally put the machine on again, even in this case. Sometimes we find a sore of a torpid character, which remains in the same state for a long while, neither getting worse, nor showing any inclination to heal, in that case, an ointment of red precipitate of mercury is the best application. If the patient loses his appetite, has a furred tongue, complains of headach, and is feverish, the machine must be taken off, and the foot examined. In this case, we generally find either an abscess forming, which requires opening, or a small spot of skin that is becoming gangrenous; under these circumstances, the use of the machine must be interrupted, unless we can arrange the straps so as to favour the part affected.

The leaving off the machine causes, of course, a delay in the cure, yet this is not so much as

most writers on the subject seem to apprehend. We have occasionally been obliged to leave the machine off for several weeks; but, after it had been applied again for a day or two, we found that we not only had lost no ground, but that we were progressing again very fairly. We even think it sometimes advisable to let the foot alone for a short while; we have treated feet that had been doing very well for a length of time, but where at once every new attempt at extension became painful and ineffective; we have then been led to suppose that perhaps the tarsal ligaments, or the periosteum of the tarsal bones, might be in an irritated condition, perhaps a little swelled,—an effect that is not unlikely to be occasionally produced by the treatment. With this impression, we have taken the machine off, put a loose bandage round the foot, and left it to itself, in a quiet, horizontal position, for about a week; and wherever we have done so, under such circumstances, we have been able to proceed with the extension, after a week's intermission, much faster than before. Besides, it is sometimes a relief to the patient, and advances the cure much, to change the machine, for a while, and apply Scarpa's shoe."

"The time which is requisite to reduce the deformity, so that the patient can wear a shoe and begin to walk, depends upon so many different circumstances, as the degree of the deformity, the age and constitution of the patient, and many other things besides, that it is almost impossible to fix it with any degree of precision. However, we may consider from one to three months as a fair average, although we have treated feet that have withstood our orthopedic efforts much longer, sometimes eight months and more; and, even after the deformity is reduced, it generally requires a great deal of care and attention, and a long-continued use of Scarpa's shoe, or a similar contrivance, especially in old cases of varus, before the patient is able to enjoy the full benefit of the operation. In fact, many patients with varus, after they have reached a certain age, require some kind of mechanical support for years, and, if they are left without it, the foot turns in again. In cases where both feet are deformed, the deformity is generally worse than where only one foot is affected, probably because the primary cause has acted more powerfully, and, consequently, affected both feet. In such cases, also, one foot is always much worse than the other, and often takes double the time before it gets straight. Besides, we have observed that those cases where the foot does not yield much before the operation, where the joints are rather stiff, are the most favourable, in this respect, that they have less inclination to turn back after they are once straightened; whereas, vari that can easily be straightened to a certain degree, on account of the joints being loose, require a longer time before these loose joints gain strength in their new position.

We mention this particularly, because the profession may be misled by reports of very speedy and perfect cures. For instance, Dr. Mütter, of Philadelphia, performed his first operation of the kind in the latter part of June, 1838, and early in 1839 he published a lecture on the subject. According to the annexed résumé, Dr. M. had operated during that time upon twenty-eight cases; of these, there were sixteen patients between the sixth and thirtieth year, and one between the thirtieth and fiftieth year. At the time of the publication of his lecture, Dr. M. reports twenty of these cases *perfectly cured*; one was cured within from ten days to four weeks; nine from four weeks to two months, and ten from two to four months. This report is very favourable; yet the term *perfectly cured*, ought to be well understood, for we doubt much whether all these twenty *perfectly cured* patients could walk within four months (the longest period mentioned) with any degree of ease, and without artificial support of some kind or other; and that is what we expect ourselves, and especially what our patients expect from us, before they consider themselves *perfectly cured*.* We wish it to be distinctly understood that, in making this remark, we do not mean to express the least doubt in Dr. M.'s success, or in the correctness of his report. We merely wish to guard the profession, as well as the public, against wrong impressions. Suppose, for instance, a surgeon operates upon his first case of the kind; every thing is doing as well as can be, but, although the foot may be almost straight, still the patient cannot walk, even at the expiration of *the four months*, and, if he can, only poorly, and not without some artificial support; will not the surgeon, who perhaps has, as yet, no experience on the subject, but who has read such favourable reports, I say, will not the surgeon, in his modesty, provided he has any, think that he has perhaps failed in some point or other, and, still more, will not the patient be inclined to believe it? Dr. Mütter, for whose talents we entertain the highest regard, must forgive us that we have taken his report as an illustration of this point; we might have taken many others besides his, for writers on the subject seem inclined to fall into the same fault. If we can succeed in cases of long standing, success, independent of the time it may require, is so creditable to the art, (we do not mean to the individual artist, the surgeon,) but to *the art* of surgery, that all embellishment is superfluous and unnecessary.

* Only a few days ago, our fee, for an operation of this kind, was refused to us by the father of the child, although the child had been running about with a perfectly straight foot for more than six months, but we had advised the family to keep the shoe on for a while yet. The father, as we say, refused to pay our fee, because he did not consider his child cured as long as "that 'ere tackle" had to be worn.

Cases of grown patients that admit of a perfect cure (as we understand the term) in so short a time, are rarely met with, although we have seen them; but a great number of our patients whom we have operated upon long ago, and in whom we have every reason to be satisfied with the success of the operation, we see still improving daily. In children it requires, of course, much less time; we have seen children walk perfectly well a week after the operation; yet even then, we find it necessary to support the ankle-joint for a considerable length of time. In children where the deformity is not very great, we generally find Scarpa's shoe alone sufficient to effect a cure, either with or without an operation, as the case may require. In very young infants, we at first only apply a bandage, until they are a month or two old, and then use the shoe.

We have met with cases of varus that had been cured for some time, and the patients had been doing well, when a new contraction took place. Here the patients had either been neglected, the shoes having been left off too soon, or they had suffered from another disease which probably caused this new contraction, or perhaps the original cause of the deformity was not yet quite removed,—in short, a relapse took place. We believe we have mentioned already that Little and Stromeyer ascribe this to a contraction of the intermediate substance of the tendon, but that we are disposed to regard it as a new contraction of the muscles, and the success of our treatment bears us out in our opinion. In these cases we do not hesitate to divide the tendo Achillis the second time; and after this, we have rarely found it necessary to use any extending apparatus, the mere division of the tendon being generally sufficient to relieve this new spasm."

FOREIGN SUMMARY.

Abstract of a Paper on Ulcerations of the Cervix Uteri, and on the Abuse of the Speculum Uteri, by C. M. GIBERT, M. D., Physician to the Hôpital de Lourcine. By FLEETWOOD CHURCHILL, M. D.—This is an able paper, appearing at a very suitable time, when the assistance derived from the use of the speculum, in treating uterine diseases, is exaggerated far beyond the experience of practical men. The author commences by objecting to the practice of attributing the delicacy and disorders of females, leading an indolent life, to some derangement of the uterine function. "To place the seat of most of the disorders of females in the uterus, as some practitioners of our days have not hesitated to do, is to dress up an old error in the garb of improvement. But to treat actively, and by means more or less severe, all the changes in the cervix uteri, however slight and superficial they may be, is more than erroneous,—it is criminal.

"This fault, however, has become so com-

mon, that, strictly speaking, the invention of the speculum (which led to it) must be regarded equally injurious as useful, if we consider the numerous abuses into which certain practitioners have been led by the constant use of the instrument.

"It is not denied that the diagnosis of venereal diseases has acquired much precision from the employment of the speculum, although much incertitude remains as to the real importance of certain lesions even when exposed to view.

"But I hesitate not to affirm, for my part, that certain alterations, altogether insignificant, and having no relation to the symptoms exhibited by the patient, have been many times regarded as the source of these symptoms. I have observed many women who complained of abdominal pains, whites, and other symptoms which might lead one to attribute them to derangements of the uterus, without there being any appreciable lesion of that organ. In other cases, certain changes were discovered by the aid of the speculum, which had given rise to no symptoms at all. This counter-proof places, beyond all doubt, the innocuous nature of many of the alterations revealed by the intervention of the speculum."

After adducing a case illustrative of the errors of the "apostles of the speculum," and commenting upon it, the author proceeds:—"During the last two years that I have had the medical duty of the 'Hôpital de Lourcine,' I have examined upwards of 800 women labouring under diseases of the genital organs, of which number 600 have been or are now under treatment in my wards. I am therefore in a condition to give testimony on the subject, interesting alike in the highest degree to science and humanity."—"The neck of the uterus, examined by the speculum, differs in appearance in those who have not had children and with those who have been confined one or more times."

"In the first case, the cervix is round, slightly pyramidal, and nipple-like, it is pierced in its centre by a small circular orifice. This is what is called the virgin cervix. In the second case, the neck is more or less changed in form and flattened; it is more voluminous; a transverse fissure, more or less gaping, with some irregularity of border, has succeeded to the primitive circular perforation. This is called the maternal cervix. It has rarely happened to me to find the uterus totally free from leucorrhœa,* and only in young females.

"The vagina is naturally of a pale rose colour and rugous; the neck of the uterus is white, slightly tinged with rose colour. Many circumstances of course may change both the form and colour of the cervix, so as to lead us

* In explanation of this remarkable fact, regard must be had to the class of females coming under the author's examination.—*Trans.*

to suppose disease when none exists. Even in the same person an examination of the speculum has given different results if made at intervals, showing how utterly mistaken are those who attempt to decide upon the integrity of these organs after one examination." After pointing out some errors which have crept into much practice, but to which we are as yet strangers in this country, M. Gibert proceeds, "But to return to the principal subject of this memoir, there is a lesion of the os uteri, which merits special attention, although not of the grave nature which some persons have supposed. This is a species of ulceration which I have termed '*Granular erosion of the cervix uteri*,' ('*erosion granulée du col de l'utérus*,') and of which many examples are given in my manual of venereal diseases. This disease differs, however, from chancre properly so called. To give an idea of its frequency I may say, that out of 500 cases of disease, it was observed in 143. In some of them the erosion existed alone, without any other morbid symptom. With a few no leucorrhœa could be observed, and with others only a slight quantity of clear viscid mucus.

"With these exceptions (amounting to about fifteen) the patients affected with granular erosion presented more or less distinctly the other symptoms of syphilis.

"This granular erosion, which is rather superficial, is generally of a rounded form and circumscribed; it occupies sometimes the anterior, sometimes the posterior lip of the os uteri, occasionally both, and still more rarely it seems to penetrate the canal of the cervix. Its surface is granular and red, contrasting remarkably with the naturally smooth surface of the neck. It bleeds when slightly touched. The surface of the erosion is ordinarily concealed by a layer of thick, semi-transparent mucus, which it is somewhat difficult to remove.

"In the commencement this species of ulceration appears in the form of small granular points, slightly projecting, which soon exco-riate and become confluent. It is very rare, however, for the ulceration to acquire any great extent.

"Though often connected with syphilitic symptoms it is impossible to attribute to them a venereal origin in all cases. Strictly speaking, the granular erosion is not a grave symptom. It neither gives rise to pain nor symptoms of metritis, as has been asserted. It may also be cured without having recourse to the ordinary energetic treatment. The cure, however, will generally take a considerable time. Cicatrization or stimulating applications do not appear to be of much use. More than once indeed the application of caustic has appeared injurious. The local remedy which has been most successful, is the spirituous tincture of nutgalls, or the "alcohol tannique," as described by M. Bontegny of Paris.

"Mixed with eight parts of water, and used

as a vaginal injection, it dessicates the erosion and arrests the discharge.

"Topical remedies, however, cannot supersede the necessity of more general treatment. In most cases, mercurial preparations have been advisable, and of these the proto-ioduret has been preferred, given to the amount of one grain in the day as a pill, and continued from six weeks to two or three months. Its exhibition should be suspended, however, if the patient be threatened with salivation.

"The womb must be preserved from all local irritation, but it is by no means necessary for the patient to be confined to the horizontal position."

After this clear history of the disease in question, M. Gibert sums up the results of his observations in four propositions, with which we shall conclude.

1. It is inconvenient, useless, and dangerous (except in syphilis) to have recourse to the speculum uteri, unless their exist local symptoms indicative of organic lesion of the womb. Hysterical affections or abdominal pain are not to be deemed sufficient grounds for this investigation.

2. On the other hand, vaginal discharges, especially in females suffering from syphilis or suspected of it, demand an examination, by the 'toucher' and speculum, in order to a correct diagnosis. From this rule virgins or young girls are to be excepted.

3. Accidental redness of the neck of the uterus, aphthous patches and excoriations, slight ulceration, or granular erosion, are not of a very serious character, and never give rise to severe symptoms.

4. All these lesions may be cured without any local application. Yet in many cases the topical use of astringents (where the inflammation was neither too great nor too acute) has been decidedly useful. Caustics are rarely necessary, and when we have to employ them, the mildest and least painful should be chosen.—*Dublin Journal*.

The following combination of copaiva and cubebs, is stated in a late French inaugural thesis by M. Guisard, to be of certain power in the treatment of obstinate gonorrhœa:

R. Balsam Copaib. }
Pulv. Cubeb. aa } 3j.
Magnesiæ q. s.

Mft. et divid. in pil No. cxliv.

S. Take six in the morning, and six in the evening, for three or four days,—then eight, afterwards ten and twelve, gradually increasing the dose for three weeks, or even longer, according to the obstinacy of the discharge. The dose is large, and to that circumstance the efficacy of the treatment is probably due.

This formula is given by M. Bretonneau, of Tours, the author of the thesis: by giving the quantity for each in a single dose in the evening, this is digested more easily than if given in the morning.